

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously Presented) An integrated circuit with a micromechanical element comprising:
 - a semiconductor substrate;
 - a micromechanical sensor element formed on the semiconductor substrate and comprising a microengineered movable element;
 - a logic circuit formed on the semiconductor substrate; and
 - a semiconductor visual display element formed on the semiconductor substrate; wherein the sensor element is electrically connected to the logic circuit, and the logic circuit is electrically connected to the semiconductor visual display element.
2. (Original) The integrated circuit of claim 1 wherein said semiconductor display element comprises an array of light-emitting pn junctions.
3. (Original) The integrated circuit of claim 2 wherein said light-emitting pn junctions comprise GaAs light-emitting pn junctions.

4. (Previously Presented) The integrated circuit of claim 1 wherein said visual display element comprises an array of semiconductor pixels having pitch dimensions of less than 20 micrometers.

5. (Previously Presented) The integrated circuit of claim 2 wherein said visual display element comprises an array of semiconductor pixels having pitch dimensions of less than 20 micrometers.

6. (Previously Presented) The integrated circuit of claim 3 wherein said visual display element comprises an array of semiconductor pixels having pitch dimensions of less than 20 micrometers.

7. (Original) The integrated circuit of claim 1 wherein said sensor element is selected from the group consisting of strain gauges, thermal gauges, radiation gauges, and chemically responsive gauges.

8-11. (Canceled).

12. (Previously Presented) An integrated circuit with a micromechanical element comprising:

a semiconductor substrate;

a moveable micromechanical sensor element formed on the semiconductor substrate;

a logic circuit formed on the semiconductor substrate; and

a semiconductor light emitting visual display element formed on the semiconductor substrate;

wherein the moveable micromechanical sensor element is electrically connected to the logic circuit, and the logic circuit is electrically connected to the semiconductor light emitting visual display element.

13. (Currently Amended) An integrated circuit provided on a semiconductor substrate with a unified input element and display element, the integrated circuit comprising:

a moveable microengineered input element formed on the substrate;

a logic circuit configured on the substrate and electrically connected to the input element;

and

an output element, the logic circuit being electrically connected to the output element;

wherein the output element is a semiconductor visual display element formed on the substrate.

14. (Canceled).

15. (Previously Presented) The integrated circuit of claim 14, wherein the input element is a micromechanical sensor element.

16. (Previously Presented) The integrated circuit of claim 14, wherein the input element is selected from a group consisting of an inertial sensor and an accelerometer.

17. (Previously Presented): The integrated circuit of claim 14, wherein the input element is selected from a group consisting of a strain gauge, a thermal gauge, a radiation gauge, and a chemically responsive gauge.

18. (Previously Presented) The integrated circuit of claim 15, wherein the micromechanical sensor element is configured to generate an electrical signal in response to an environmental or conditional change.

19. (Previously Presented) The integrated circuit of claim 18, wherein the output element is an array comprising pixels of less than 25 micrometers.

20. (Previously Presented) The integrated circuit of claim 18, wherein the output element is an array comprising pixels configured to display alphanumeric characters.

21. (Previously Presented) The integrated circuit of claim 20 wherein the input element is a first input element, the integrated circuit further comprising:
a second input element.

22. (Previously Presented) The integrated circuit of claim 1 wherein the visual display element provides a visual indication of a condition sensed by the sensor element.

23. (Previously Presented) The integrated circuit of claim 22 wherein the visual indication comprises an alphanumeric character.

24. (Previously Presented) The integrated circuit of claim 22 wherein the visual indication comprises multiple colors.

25. (Previously Presented) An integrated circuit provided on a semiconductor substrate with a unified input element and display element, the integrated circuit comprising:

a moveable microengineered input element formed on the substrate that senses a condition;

a logic circuit configured on the substrate and electrically connected to the input element; and

a visual display element supported by the substrate and coupled to the logic circuit that provides a visual image;

wherein the visual image is a visual representation of the sensed condition.

26. (Previously Presented) An integrated circuit provided on a semiconductor substrate with a unified input element and display element, the integrated circuit comprising:

- a moveable microengineered input element formed on the substrate that senses a condition, wherein the input element is a strain gauge;
- a logic circuit configured on the substrate and electrically connected to the input element;
- and
- a visual display element having multiple light-emitting pn junctions supported by the substrate and coupled to the logic circuit, wherein the visual display element provides a visual image comprising a visual representation of the sensed condition.

27. (Canceled).